

ABSTRACT

A crankcase scavenged two-stroke engine (1) comprises a
5 cylinder (15) including scavenging ports (31, 31') and at
least one exhaust port, a piston (13), a connecting rod (17),
a crankshaft (18) and a generally sealed crankcase (16). The
crankcase inducts a fuel/air mixture and is connected to the
scavenging ports (31, 31') by means of transfer ducts (3, 3')
10 which, as the piston (13) is travelling from a lower position
towards a higher position, are inducting pure air let in from
connecting ports (8, 8') near the scavenging ports (31, 31')
in the cylinder (15). The transfer duct (3, 3') volume is
less than 20% of a volume swept by the piston (13) during an
15 entire revolution of the crankshaft (18). Recesses (10, 10')
are formed in an outer periphery of the piston (13), said
recesses (10, 10') co-operating with the connecting ports (8,
8') in the cylinder wall for controlling the filling of the
transfer ducts (3, 3') with air. An inlet tube (22) in the
20 cylinder wall supplies the air/fuel mixture, said inlet tube
(22) being connected to the crankcase (16) and covered by the
piston (13) as the piston (13) is in the lower position, and
open to the crankcase (16) as the piston (13) is in the
higher position.

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FIG 1